

## CATHETER WITH FLUORESCENT TEMPERATURE SENSOR

### ABSTRACT OF THE DISCLOSURE

A catheter with a fluorescent temperature sensor is shown and described.

5 The catheter includes a lumen, a fiber-optic cable that extends through the lumen.  
A distal end of the fiber-optic cable is coated with a fluorescent material and a  
proximal end of the fiber-optic cable is connected to a console. The console  
includes a light source for transmitting light through the fiber-optic cable for  
exciting the fluorescent material. The console further includes a photo multiplier  
10 tube for converting light emitted by the excited fluorescent material to a plurality of  
analogue voltage signals. The console further includes a digital oscilloscope linked  
to the photo multiplier tube for converting the plurality of analogue voltage signals  
to at least one digital signal. The console further includes a processor linked to the  
digital oscilloscope for converting the at least one digital signal to a temperature  
15 value for the distal end of the fiber-optic cable.

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